

Application No. 09/848,767
Filed: 5/4/01
TC Art Unit: 3737
Confirmation No.: 6656

REMARKS

Claims 22 and 33 have been amended to obviate the objections to there claims. With respect to the rejection of claims 11 and 36 under 35 U.S.C. 112, first paragraph, the Applicants respectfully traverse this rejection. The specification specifically describes a system for measuring the size of tumors in breast tissue. As noted at page 4, lines 5-19, specific reference is made to the fact that tumors in breast tissue exhibit both absorption and scattering contrast, and are consequently well suited for measurement as described in the application. At page 7, lines 1-3, there is specific mention of the measurement of early stage tumors. Figs 5A-5D, 6A-6D, and 9A-9D all relate to a method of measuring particles in a tissue-like scattering medium (see page 15, lines 16 through page 20, lines 18). Both axes in these Figs. are in units of millimeters (mm) or centimeters (cm) and indicate the sizes of the particles being measured. Measurement of cancerous lesions is specifically referenced at page 20, lines 12-18 of the specification. Reconsideration of the rejection is respectfully requested.

Claim 32 has been amended to obviate the rejection thereof under 35 U.S.C. 112, second paragraph. With respect to claim 40, Applicants assert that one skilled in the art after reading the

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specification would appreciate that certain prior art methods such as the diffusion approximation (see application at page 4, line 3-4) do not provide an accurate measurement. The description of Figs 6-8 provide a direct comparison of the methods of the present invention in contrast to the diffusion approximation. Claim 40 simply reflects the result of this comparison.

Claims 1-4, 9, 11-13, 22, 26-29, 34 and 36 have been rejected under 35 U.S.C. 102(b) as being anticipated by Chernomordik. Claims 6-8, 15, 17-21, 23, 31, 32, 37 and 40 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Winn. With respect to Chernomordik, at page 1860, left column, this reference describes the correction to the scattering model as a scaling factor. There is no teaching in this reference that a separate function reflecting the absorbing characteristics is needed to correct the diffusive scattering representation. Note that the Winn et al. publication also fails to describe or suggest the use of a second function to reflect the absorption characteristics of the medium being measured. There is no indication that these publications describe the measurement of the size of objects such as tumors in the medium.

Claims 5, 16, 30 and 33 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Chernomordik in view of Chang.

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Claims 10, 14, 25, 35, 38 and 39 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Chernomordik in view of Barbour.

The remaining references fail to teach how to measure the size of objects within the medium using this method.

Reconsideration of the rejected claims is respectfully requested.

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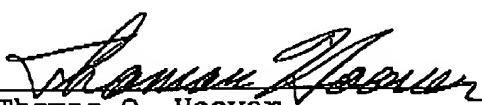
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The Examiner is encouraged to telephone the undersigned attorney to discuss any matter that would expedite allowance of the present application.

Respectfully submitted,

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